

REMARKS

Applicants have carefully considered this Application in connection with the Examiner's Action, and respectfully request reconsideration of this Application in view of the above Amendment and the following remarks.

Applicants have amended Claims 1, 4 – 6, 8, 10, 13 – 15, 17 – 18, 21 – 23, and 25.

Pending in the application are Claims 1 – 26.

I. Continuing Data in Specification

In accordance with the Examiner's request, Applicants have amended Page 1, lines 2 – 3 of the Specification to reflect the status of the parent application.

II. Rejections Under 35 U.S.C. §112, First Paragraph

A. Written Description

Claims 1 – 26 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification. Applicants respectfully assert that the support for the claim limitations will be pointed out throughout the remainder of this response, in connection with the discussion of the other 35 U.S.C. §112 rejections.

B. Enablement

Claims 1 – 26 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicants have amended Claims 1, 10, and 18 to clarify that the type of molecular weight for the polyurea is number average molecular weight.

III. Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 1 – 26 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Claims 1 and 18

Applicants have amended Claims 1 and 18 to specify that the ratio of amine and isocyanate is a volume ratio of isocyanate to amine of. Support for this amendment is found in the Specification at Page 16, lines 3 – 10. Lines 3 – 9 clearly indicate that the polymeric composition and its reactants are being defined in terms of volume. Lines 9 – 10 clearly indicate that the ratio is one of isocyanate to amine. The ratio, being defined in the Specification according to overall reactant volumes, is clearly between compounds rather than functional groups.

B. Claims 1 and 18

Applicant respectfully asserts that the term “evenly distributed” refers to the even dispersion of the novel polyurea and the particulate filler throughout the cured polymer after completion of the secondary reaction. Support for this assertion is found in the Specification at Page 15, lines 5 – 7.

C. Claims 4, 13, and 21

Applicants have amended Claims 4, 13, and 21 to delete the term “aliphatic.”

D. Claims 5, 8, 10, 14, 17, 18, 22, and 25

Applicants have amended Claims 5, 8, 10, 14, 17, 18, 22, and 25 to clarify that the claimed weight and volume percent values are based on the total weight of the polymeric composition and the total volume of the polymeric composition, respectively. Support for claims 5, 14, and 22 can be found in the Specification at Page 20, lines 5 – 7, as well as Tables 1 – 8, which clearly indicate that the weight of the isocyanate is based on the total weight (100%) of the polymeric composition. Support for claims 8, 17, and 25 can be found at Page 21, lines 6 – 7, as well as Page 16, lines 15 –

19, which clearly defines the resulting modified polymer in terms of its total volume. Support for claims 10 and 18 can also be found at Page 16, lines 15 – 19, which clearly indicates that the percent volume of the reactants is based on the total volume of the polymer.

E. Claim 10

Applicants have amended Claim 10 to delete the phrase “predetermined amount of.”

Applicants have also amended Claim 10 to specify that the precursor to the epoxy resin is an epoxy. As shown in Tables 1 – 8, the components which are mixed to form the epoxy resin include an epoxy. Also, as stated in the Specification at Page 14, lines 5 – 7, epoxies are pre-polymers which can be cured to create epoxy resins.

Applicants respectfully assert that the deletion of the phrase “precursor to said” from the final step of the claimed process clarifies that it is the isocyanate and the epoxy which are introduced to the mixing chamber together, after their previous introduction to each other within the first vessel. Applicants have also amended the last two lines of Claim 10 to clarify that it is the epoxy which polymerizes to form the epoxy resin. Applicants have also amended Claim 10 to include the addition of the particulate filler, which can be added to either vessel, as described in the Specification at Page 14, line 12.

F. Claims 6, 15, and 23

Applicants have amended claims 6, 15, and 23 to specify that the weight of the isocyanate is an equivalent weight. Support for this amendment can be found in the Specification at Page 20, lines 1 – 2.

IV. Provisional Obviousness-Type Double Patenting

Claims 1 – 26 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1 – 16 of copending Application No. 11/042,247. Applicants are enclosing a terminal disclaimer to overcome this rejection.

V. Rejections Under 35 U.S.C. §103(a)

Claims 1 – 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,328,967 to Orlando, et al. (“Orlando”), in view of U.S. Patent No. 4,578,424 to Goel (“Goel”), U.S. Patent No. 5,128,433 to LeCompte et al. (“LeCompte”), U.S. Patent No. 4,868,231 to Lenke et al. (“Lenke”), or U.S. Patent No. 4,296,020 to Magrans, Jr. (“Magrans”).

Applicants respectfully assert that the polymeric composition, and the method of making it, are patentably distinct from the cited references due to the inclusion of Applicants’ novel polyurea. As the amended claims state, the polyurea has a low molecular weight, which helps control the viscosity of the mixture and enable an even dispersion of the polyurea and the suspended particulate filler. See Specification, Page 11, lines 16 – 20. Neither Goel nor LeCompte teach or suggest an in situ formed polyurea having a low molecular weight. Furthermore, to produce an in situ polyurea with the preferred low molecular weight, a very careful selection of reactants and reactant amounts must be selected. Lenke and Magrans do not teach Applicants’ choice of reactants because Lenke and Magrans are contradictory in their teachings about the use of amines. While Magrans suggests the use of aliphatic amines, Lenke teaches that aliphatic amines are too reactive. See Lenke, Col. 1, lines 61 – 65. Applicants’ choice of reactive amines could not have been suggested by the cited references because Lenke teaches away from this suggestion.

For these reasons, Applicants respectfully submit that Claims 1 – 26 are patentable over Orlando, in view of Goel, LeCompte, Lenke, or Magrans.

IV. Conclusion

Applicants respectfully submit that, in light of the foregoing comments, Claims 1 – 26 are in condition for allowance. A Notice of Allowance is therefore requested.

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If the Examiner has any other matters which pertain to this Application, the Examiner is encouraged to contact the undersigned to resolve these matters by Examiner's Amendment where possible.

Respectfully submitted,

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